Specification: Please amend the specification as follows:

Page 1, lines 5-6:

This application is a ~~division and~~ continuation in part of US Patent Application Serial No. 09/498211 filed February 4, 2000, now US Patent 6,270,651 issued Aug. 7, 2001.

Page 11, lines 9-28:

In a specific embodiment, a general class of composite membranes is disclosed as those dual layer membranes used in fuel cell technology for gas diffusion electrodes, with or without electrocatalyst loading, a commercial embodiment of which is currently sold by E-Tek Inc., a well known provider of fuel cell components to the industry. That commercial product has a porous support layer overlain with Teflon® (PTFE) that has been pressed onto or into the surface of the support layer. The sole uses of this composite membrane in the prior art has been for a liquid to gas interface. The commercial product is disclosed in combination with a system for fuel cells at their Internet web site ~~at www.etek-inc.com/about.html~~ where they describe their product as an electrode or catalyst (support layer) that can be adhered directly to a polymer electrolyte membrane. The constructions are known to E-Tek, Inc. as membrane electrode assemblies used in fuel cells for power generation. This art of composite membranes has been developed for electrical power generation as a liquid to gas interface since 1930. Although the technology has advanced dramatically, the uses in the prior remain as a liquid to gas interface with uni-directional flow of gas components. No prior art reference suggests their use as an interface for gas to gas where gas exchange back and forth across the membrane occurs. The present invention uses the composite membrane in just such a manner to exclude from a gas sensor a component in the external environment gas.

Page 13, lines 18-31 and page 14, lines 1-14:

In a most dual layer composite membrane, Figure 13 shows a diagram of a commercial product of E-Tek, Inc. The product A-6 solid polymer electrolyte electrode, single sided version has support layer 209 as a plain weave carbon cloth of 3.4oz/yd2 (116 g/m2). The support thickness is about 0.36 mm. Figure 14 is a microphotograph of an exemplary carbon cloth Vulcan XC-72 (Cabot Industries Corp.) used in the support layer of the composite membrane of composite membrane 207. A finished catalyzed electrode ranges from 0.45 mm to 0.50 mm in thickness depending on the catalyst loading 210. Gas-side wet-proofing is by means of a hydrophobic fluorocarbon/carbon layer 208 on one side of cloth only. In the commercial product of Figure 13, E-Tek, Inc. uses Nafion® as the hydrophobic fluorocarbon for layer 208, which is pressed at high pressure into the support layer 209 to obtain the hydrophobic fluorocarbon/carbon composite. The water exclusive effect of the inventive system may also be provided by other polymer in layer 208, as disclosed in the research of Jochen Kerres et al in the article "DEVELOPMENT OF MEMBRANES FOR ELECTROLYSIS AND MEMBRANE FUEL CELLS" (Institut für Chemische Verfahrenstechnik, Universität Stuttgart , 12/24/96, Collaborative Research Center SFB 270 / Project A7~~, published at http://www.uni-stuttgart.de/sfb270/A7_E.htm~~). As is well demonstrated in the prior art, no one heretofore has shown inclination to attempt to use the composite membranes of this embodiment of the invention system in a gas to gas interface for water exclusion. In the composite membrane of Figure 13, a model is disclosed for preparation of other component exclusive layers, whereby layer 208 is a polymer / carbon composition formed from pressing or combining by other method on to support layer 209 with high porosity and adequate support such as is found in carbon fiber cloth or carbon paper. As for any physicochemical phenomena, the determining step is the slowest step and in this embodiment the slowest step is the diffusion of the gas through the hydrophobic part of the membrane

which is equipped with the smallest porosity. It is most preferred where the support layer is at least somewhat hydrophilic that the support layer be sealed from the outside environment by the hydrophobic layer and other structure or materials.